How to find whether AVX is enabled in a JAVA application

Steps：

1. Download jdk8 in 64 and unzip it
2. Download linux-hsdis-i386.so from <https://kenai.com/downloads/base-hsdis/https://kenai.com/downloads/base-hsdis/linux-hsdis-amd64.so>
3. Rename linux-hsdis-amd64.so to hsdis-amd64.so by command “mv linux-hsdis-amd64.so hsdis-amd64.so” [1]
4. Move hsdis-i386.so under the path “jre/lib/amd64” in your JDK
5. Compile the sample Java application in the Appendix by “/PATH/TO/jdk1.8.0\_40/bin/javac SmallFloatAdd.java”
6. Run the command[2] “/PATH/TO/jdk1.8.0\_40/bin/java -Xmx1024m -XX:UseAVX=0 -XX:+UnlockDiagnosticVMOptions -XX:+PrintCompilation -XX:+LogCompilation -XX:CompileCommand=print,SmallFloatAdd.\* SmallFloatAdd -E > withoutavx.log 2>&1”
7. Run the command “/PATH/TO/jdk1.8.0\_40/bin/java -Xmx1024m -XX:+UnlockDiagnosticVMOptions -XX:+PrintCompilation -XX:+LogCompilation -XX:CompileCommand=print,SmallFloatAdd.\* SmallFloatAdd -E > withavx.log 2>&1”

The difference between step 6 and step 7 is whether AVX is disabled.

In the log file “withoutavx.log”, we can find command “addss” which is an SSE command and in the log file “withavx.log” which is got in step7, we can find command “vaddss” which is an AVX command [3]. More commands can be found in the link (<http://www.felixcloutier.com/x86> ).

Reference:

[1]<http://stackoverflow.com/questions/9341083/how-to-use-xxunlockdiagnosticvmoptions-xxcompilecommand-print-option-with-j>

[2] <http://hllvm.group.iteye.com/group/topic/39391>

[3] <http://www.felixcloutier.com/x86/ADDSS.html>

Appendix:

